

REMARKS**I. Claim Status:**

Claims 12-14 have been elected and remain pending and stand rejected. Claims 1-11 have been withdrawn without prejudice. Claims 12-14 have been amended to conform the claims to U.S. practice. The reference characters recited in the claims have been deleted. To maintain clarity, the recited delimited walls 8, 15, 17 and 18 have been re-designated as a first delimited wall, a second delimited wall, a third delimited wall, and a fourth delimited wall, respectively. Other minor amendments have also been made to harmonize the remainder of the claims to these clarifying amendments. No new matter has been added. Entry and consideration of the claimed, as amended, are respectfully requested.

II. Rejections under 35 U.S.C. § 103(a):

Claims 12-14 stand rejected as being obvious over Newton et al. in view of Shi et al. and Dwyer et al. Applicants respectfully traverse the rejection.

Applicants' invention, as claimed, includes a chamber with at least one wall having a slot for allowing the necks of bottles being treated in the chamber to remain outside of the treating area while the bottles are passed through the treating area. None of the cited references show or suggest such a feature. Although the references have been interpreted to show such a feature, the analysis given in support of the noted rejections contains several substantial errors of fact that render the rejections improper and warrant reversal. Each error will be explained in the order presented.

Bowman describes a device and process for smoothing a coating material deposited on the outer surface of bottles. The device comprises three basic

components: 1) fire polishing burners, 2) spray nozzles for spraying a cooling spray, and 3) a blower to supply drying air to the set coating material [2:45-50]. On page 4 of the office action, Bowman is referenced as having the following steps reproduced from the office action here in bold print¹:

- i. **Feeding the bottles through a first area of the treatment furnace located under spaced out heating elements (column 2 lines 10-18);**

This is an incorrect recitation of the description at [2:10-18]. The passage clearly describes a track system with parallel chains and grippers suspended from the chains. There is no mention of heating elements, a first area of the treatment furnace, or the process of feeding bottles through the first area. Moreover, there is nothing in the cited passage to even suggest feeding the bottles through a first area of a treatment furnace *located under* the heating elements. As is clear from the description and drawings of Bowman, any heating step is conducted with the bottles passing *over* the heating elements.

- ii. **Providing an air flow from outside the treatment furnace into said first area of the furnace directed upwardly, first, around the bottles and, then, around said heating elements (column 2 lines 31-44);**

This is an incorrect recitation of the referenced passage. Column 2, lines 31-44 describes a cooling process by which water cooling spray nozzles spray water onto the surface of the bottles to set the coating material. The cooling step is followed by the introduction of forced air from an air blast distributor that blows excess water droplets from the bottles' surfaces to promote drying. The forced air is supplied by a blower. The incorrectness of recitation is explained as follows.

First, there is no mention of the air flow coming from outside the treatment

¹ The description of Bowman is broken into Roman numeral paragraphs i-v. Paragraph v is reproduced with commentary in multiple sections as the paragraph describes multiple passages from the Bowman reference.

furnace. In fact, Fig. 1 suggests the air supply for the blower is derived from the air that occupies the same space as the conveyor system. Second, there is no mention of a "first" area, which suggests at least a second area. The drawing and description illustrate and describe a single area in which all the invention components are located. Third, the air flow is not directed around said heating elements. The heating elements are shown and described as being laterally displaced from the area where the forced air is applied to the bottles. In fact, the heating elements are separated from the air blast distributor by the water spray nozzles.

- iii. Sending said bottles, after feeding them under the heating elements, into a second area of the furnace, which is located above said heating elements (figure 1).**

This description of what is shown in Fig. 1 is not correct. There is neither anything in the figure, nor anything in the description that shows or describes the bottles ever being fed *under* the heating elements. The bottles are only shown and described as being fed *over* the heating elements as well as over the other components of the treating equipment. The "second area" of the furnace description is also incorrect as there is no description or illustration of a "furnace," and to the extent there is a "second area," it is not involved with heating elements, but with water spraying nozzles.

- iv. Allowing the airflow, which has already flown around said heating elements, to flow around the bottles in said second area (column 2 lines 19-30);**

This section only describes the bottles being gripped and transported *over* heating elements for smoothing the coating material. There is no mention of airflow. Again, as explained above, the airflow described in another section of Bowman is

never directed around said heating elements. The configuration of the treating equipment makes such a step impossible as the air blast distributor is downfield and lateral to the heating elements. The air blast distributor focuses forced air in an upward direction against and around bottles suspended over the air blast distributor. The air is not forced in a lateral direction toward the heating elements. Again, there are no segmented areas in the treating equipment. There is no first area or second area.

- v. Mixing at least part of the hot airflow flowing out of said second area with air obtained from outside before sending a refreshed airflow to said first area of the furnace (column 2 lines 10-18).**

This passage only describes the dual chain conveyor with grippers. There is no mention of "hot airflow," "second area," "air obtained from outside," "refreshed airflow," or "first area." There is no description concerning the mixing of hot airflow from one area with air outside the device to reintroduce the airflow to another area of the device. There is simply no support for this interpretation of column 2 lines 10-18.

Bowman also discloses the claimed chain having a plurality of chucks that grip and hold the bottles in the furnace when in proximity of the furnace and passing outside of it parallel to the wall provided with an opening adapted to allow the passage of the neck of the bottles, making it possible to keep the neck of the bottles outside the furnace and to divide the airflow (column 2 lines 10-15) wherein a separate inlet chamber of the air from an outlet chamber from which the air, after passing from the lower area to the upper area and being heated by the heating elements, flow out of the chamber (figures 1 and 2) wherein said wall also serves to deflect part of the airflow

coming from the duct to area to send it to the chucks to cool the neck of the bottles (column 2).

The grippers of Bowman do not hold the bottles and pass them outside of a wall. There is no wall described in Bowman. There is no opening adapted to allow the passage of the neck of the bottles so as to keep the neck of the bottles outside the furnace as there is no structure disclosed defining an opening. The bottle necks are exposed to the heat of the heating elements as are the rest of the parts of the bottles. There is no lower area and upper area described through which the air may pass. There is no structure to divide the airflow (certainly no such structure is described at column 2 lines 10-15). There are no inlet and outlet chambers through which the air passes. The forced air is not heated by the heating elements as the forced air is introduced into the treating equipment laterally down field from the heating elements. Lastly, there is no wall to deflect the airflow coming from the duct area to cool the necks of the bottles.

Apart from these considerable errors of interpretation, as conceded, Bowman fails to describe anything remotely similar to applicants' claimed chamber delimited by walls.

The deficiencies of Bowman are not resolved by Wetmore. Wetmore neither shows nor suggests many of the claimed features absent from Bowman. Similar errors of interpretation have also been made with respect to the Wetmore reference that render the application of Wetmore as the basis for the 103(a) rejection improper. The interpretation errors are as follows.

Wetmore does not have an upper area for treating bottles and a lower area for treating bottles. There is only one area for treating bottles designated as heat chamber C. Heat chamber C is defined by side walls 10, asbestos sheet 34 that

forms the bottom of the chamber, and perforated sheet metal plates 38 that form the top of the chamber [2:15-26]. It is solely within this chamber that the bottles are treated as shown in Fig. 2. The bottles are supported on supports 27 attached to chains 18 that travel through chamber C in one direction laden with bottles and return under chamber C without bottles in the other direction.

Asbestos sheet 34 that forms the lower wall of chamber C does not allow gas to flow through as the material is a well known heat insulator. Its purpose is to keep heat in chamber C within which are located burner pipes for supplying heat to the chamber. The furnace, i.e., the burner pipes, is not placed inside a lower area, but in the same area or chamber as the bottle treating chamber, chamber C.

Wetmore neither shows nor suggests the claimed feature of an opening adapted to allow the passage of the neck of the bottles so as to keep the neck of the bottles outside the furnace. There is no structure disclosed in Wetmore defining an opening for bottle necks. The bottle necks in the Wetmore device are exposed to the heat of the heating elements as they travel within chamber C during the bottle treating process.

As conceded, Wetmore does not disclose a door for delimiting hoods to receive airflow. Lastly, Wetmore does not disclose or suggest a vertical duct delimited by a wall of chamber C to permit airflow from the hoods to chamber C.

The deficiencies of Bowman and Wetmore are not resolved by Smith. Smith neither shows nor suggests the claimed feature of a slot formed in a wall and adapted to allow the passage of the neck of the bottles so as to keep the neck of the bottles outside the furnace and treating area while the bottles are being moved through the treating area. There is no structure disclosed in Smith defining an opening for bottle necks. The Smith device is not even concerned with the treatment

and preparation of bottles. Instead, Smith discloses a device designed to continuously dehydrate liquid-containing materials at low temperature. On this basis, Smith should not properly be considered analogous art. Even if considered analogous, Smith falls far short of obviating the claims in combination with Bowman and Wetmore. There is not disclosure or suggestion in Smith of a slot formed in a wall for receiving bottle necks.

Moreover, the door of Smith does not render obvious applicants' claimed door. The door of Smith allows access to the interior of the chamber when not in use to allow portions of the interior fittings to be removed, installed or adjusted. [11:21-34]. In contradistinction, applicants' claimed door is adapted to permit hot air flowing out of the outlet chamber to flow into the inlet chamber. No such configuration for a door is shown or suggested by Smith.

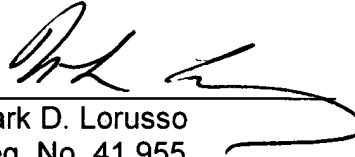
Based on the considerable errors of interpretation, a prima facie case of obviousness has not been established. The references, as properly interpreted do not show or suggest all the claimed features of applicants' invention. For all the foregoing reasons, claim 12 is allowable over Bowman in view of Wetmore and Smith. Claims 13 and 14 are deemed allowable as they depend, directly or ultimately from claim 12. Reconsideration and removal of the rejections of claims 12-14 under § 103(a) are respectfully requested.

III. Conclusion:

For all the foregoing reasons, the claims are considered to define patentably over the prior art. Reconsideration is requested and favorable action is solicited.

Respectfully Submitted,

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